

# TINKER AIR FORCE BASE

(SOLDIER CREEK/

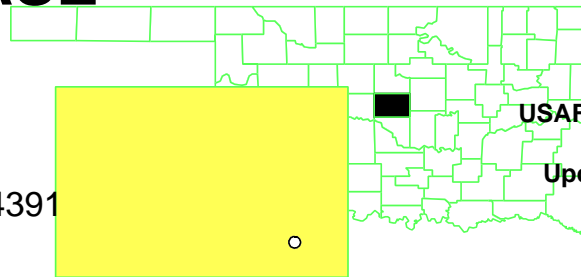
BUILDING 3001)

**OKLAHOMA**

EPA ID# OK1571724391

Site ID: 0601510

**EPA REGION 6**  
**CONGRESSIONAL DISTRICT 04**  
Oklahoma County



Other Names:

**USAF Tinker Air Force Base**

**Updated: 09-24-03**

## Site Description

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- Location:**
- Oklahoma City metropolitan area
  - Contiguous with Midwest City, which is southeast of Oklahoma City
  - Nearest residence is 300 feet from Tinker Air Force Base (AFB) Landfill #6.
  - Nearest drinking water well is at the above residence.
  - Site is located on southeast edge of metropolitan area.
- Population:**
- Oklahoma City 406,800; Mid West City 58,000.
- Setting:**
- The base covers 4,277 acres and contains approximately 500 buildings.
  - Has six landfills, two waste pits, and three radioactive disposal sites.
  - The Building 3001 area is a major aircraft rebuilding/refurbishing facility, using large quantities of industrial solvents.
  - Building 3001 and adjacent Soldier Creek are the original boundaries of the Superfund site. The Industrial Waste Treatment Plant (IWTP) ground water operable unit was added to the site for further investigation.
- Hydrology:**
- Base is located in the recharge zone of the Garber-Wellington Aquifer.
  - Ground water can occur at depths as shallow as 20 feet, but public water supplies are drawn from depths of 400+ feet.

## Present Status and Issues

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- The EPA and the Air Force are participating in technical exchange meetings with the State regulatory authority (ODEQ) to gain feedback and consensus on the Remedial Investigation, Risk Assessment and Feasibility Studies for the groundwater operable units.
- A proposed plan for the Industrial Wastewater Treatment Plant Groundwater operable unit and Soldier Creek Offsite Groundwater operable unit is scheduled to be made available for public comment this winter.

## Wastes and Volumes

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- The principal pollutants to Tinker Air Force Base are chromium and trichloroethylene (TCE).
- TCE (1700 parts per billion in water supply well #18).
- Garber-Wellington aquifer is contaminated with solvents and metals from past industrial activities (engine overhauls and metal plating operations).

- The total volume of contaminated ground water is unknown at this time.
- Ground water contamination has been detected on-site and off-site.

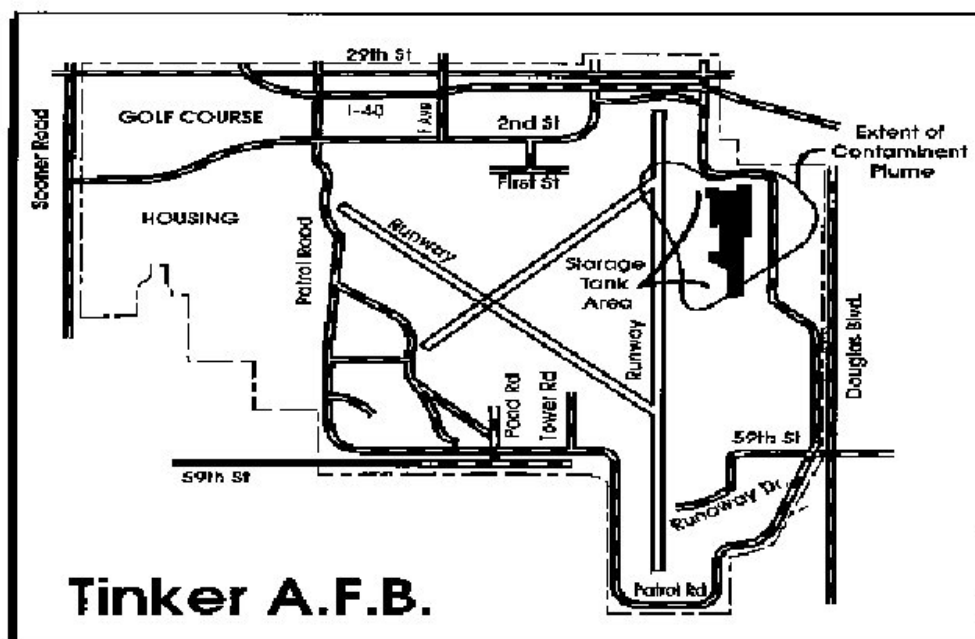
## Site Assessment and Ranking

### NPL LISTING HISTORY

Site HRS Score: 42.24  
Proposed Date: 3/29/85  
Final Date: 7/22/87  
NPL Update: No. 3

- Removals:
- Removal of Building 3001 Tanks (7/85)
  - Removal of Contaminated Soil from on-base streams (11/85)
  - Removal of free product from ground water

## Site Map and Diagram



## The Remediation Process

### Site History:

- 1942 - Base activated - Its primary mission was to serve as a worldwide repair depot for aircraft and associated equipment and weaponry - the mission has remained unchanged through base history - this is a Government owned facility.

- On-site disposal of industrial wastes occurred from 1942 until 1979; off-site disposal since 1979.
- EPA and the Air Force signed a Federal Facilities Agreement (FFA) in December 1989.
- 2 operable units were targeted: Building 3001 and Soldier Creek.
- Extensive remedial investigation/feasibility study (RI/FS) activities were performed for Building 3001 by other Air Force Contractors from 1982 to 1986.
- The Building 3001 RI was completed 9/87, FS was completed 9/89.
- A Proposed Plan of Action for the Building 3001 remedy was published 5/90.
- The RI/FS for Soldier Creek is complete; off-site ground water contamination was found during Soldier Creek investigation. Result: new ground water Operable Units under FFA.
- Soldier Creek Proposed Plan published 4/93.
- Soldier Creek Record of Decision (ROD) signed 9/14/93.
- Soldier Creek Ecological Risk Assessment began September 1994.
- The Industrial Waste Treatment Plant and Off-site Ground Water RIs began 9/94.
- The Ground water treatment plant for the Building 3001 operable unit has been constructed and system tests were conducted successfully in the summer of 1993.
- The Building 3001 ground water extraction design was modified in 1992 to include horizontal wells in order to expedite the ground water cleanup time frames. Long-term remedial action is on-going.
- The proposed plan for the Soldier Creek operable unit has been finalized, the Soldier Creek public comment period began April 16, 1993; the Record of Decision was signed on September 14, 1993.
- The Soldier Creek Ecological Risk Assessment, part of the Soldier Creek Surface and sediment remedy was conducted as part of the Remedial Design. The Soldier Creek Ecological Risk Assessment was approved in November 1996.
- The Air Force has submitted the Final Remedial Investigation and the Draft Final Risk Assessment for the Off-Base Soldier Creek And Industrial Wastewater Treatment Plant Ground Water Operable Units (July 1998).

#### Health Considerations:

- Over 55,000 people use the Garber-Wellington aquifer as a source of drinking water.
- Tinker has provided bottled water to those residents with drinking water wells contaminated above drinking water standards.
- Midwest City has supplied affected residents with city water hookups.
- Residents have expressed desire for additional off-site drinking water well sampling; sampling completed.

## Record of Decision

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<p>Signed: August 16, 1990 for Building 3001 September 14, 1993 for Soldier Creek</p>
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- The Building 3001 Record of Decision (ROD) addresses the ground water contamination under and around Building 3001, closure of Pit Q-51, and remediation of underground storage tanks in the North Tank Area (NTA).
- **Ground Water:** Interior and Exterior Pump and treat with industrial reuse of treated water.
- **North Tank Area (NTA):** Soil vapor extraction/thermal destruction and pump out floating petroleum.
- **Pit No. Q-51:** Remove liquids, clean pit, offsite disposal of contaminated material

## Other Remedies Considered

## Reason Not Chosen

- |                                |  |
|--------------------------------|--|
| 1. "No Action"                 | Did not meet remedial objectives                                   |
| 2. Exterior Pumping.           | Did not remove contaminants from plume with highest concentration. |
| 3. Discharge to Soldier Creek. | Not accepted by OSDH and community.                                |

- Building 3001 and Soldier Creek must meet Superfund requirements.
- A multi-layer cap at Landfill #6, an interim remedy, was completed in December 1985; additional cap was placed on S.E. corner of Landfill #6. (not part of Superfund site)
- Wells 18 and 19 west of Building 3001 were plugged on September 26, 1986.
- Landfills 1 - 4 to be capped to abate further migration of contaminants, with further action to be taken at a later date (not part of Superfund site)
- Action Memo approved for removal of free product from ground water under the POL Facility on May 17, 1988.
- Interagency Agreement with Air Force became effective May 21, 1989.
- Remaining uncapped area of Landfill #5 is to be capped. (not part of Superfund site)
- Pit Q51: Liquids were removed and pit cleaned in August and September 1990. Pit was backfilled and capped September 18, 1990.
- NTA: remedial action (RA)/recovery of fuel product began June 10, 1991
- The site is being addressed by EPA, Oklahoma Department of Environmental Quality (ODEQ), and Tinker AFB through a Federal Facilities Agreement.

## Community Involvement

- Community Involvement Plan: Developed by Tinker AFB
- Open houses and workshops: 9/89 (RI); Agency for Toxic Substances and Disease Registry (ATSDR) 11/94; Restoration Advisory Board (RAB) 12/94; 1/95; Installation Tour 4/5/95
- Building 3001 Proposed Plan Fact Sheet: 3/90; Soldier Creek Proposed Plan Fact Sheet: 4/93
- Building 3001 Public Meeting: 4/90; Soldier Creek Public Meeting: 4/93
- Building 3001 ROD: 8/16/90; Soldier Creek ROD: 9/14/93
- Milestone Press Release: 1/91
- Citizens on site mailing list: 200
- Constituency Interest: Residents desire additional off-site drinking water well sampling; sampling conducted during 1991.
- Site Repository: Midwest City Public Library, 8143 West Reno Avenue, Midwest City, OK 73110
- Applications for the Restoration Advisory Board were received in January 1995, selected in 2/95. First meeting was held 2/28/95.
- Citizen Advisory Board meetings are held quarterly at the Midwest City Public Library. The next meeting is scheduled for April 16, 2002, starting at 6:00 PM.

## Technical Assistance Grant

- Availability Notice: 6/2/89
- Letters of Intent (LOI) Received: 5/9/89, 7/6/89
  - 1) Environmental Pollution and Health Concerns Coalition (EPHCC) on 5/9/89
  - 2) Soldier Creek Citizens Environmental Group (SSCEG) on 7/6/89
- SSCEG Letter of Intent (LOI) was terminated on 2/1/90 for non-response.
- Draft Application Received: EPHCC submitted draft application for TAG on 11/27/89.
- Final Application Received: None - EPA Comments on draft forwarded on 1/15/90, no final

application ever received despite EPA outreach and assistance.

- Grant Award: N/A
- Current Status: TAG availability was re-advertised 3/29/91. No additional LOIs received to date and no TAG was awarded.

## Contact Information

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- **Remedial Project Manager (EPA):** Robert Sullivan, 214/665-2223, Mail Sta. 6SF-AP
- **State Contact:** Robert Replogle, 405/271-7158, ODEQ
- **Community Involvement (EPA):** Robert Sullivan, 214/665-2223, Mail Sta. 6SF-AP
- **Attorney (EPA):** Mike Barra, 214/665-2143, Mail Sta. 6RC-S
- **EPA Community Involvement Liaison:** Arnold Ondarza, 1-800-533-3508, EPA (6SF)
- **State Coordinator (EPA):** Roberta Hirt, 214/665-8079, Mail Sta. 6SF-LT
- **Prime Contractor:** Battel (for USAF) and Woodward-Clyde

## Benefits

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- Remediation of the ground water at the Tinker AFB Building 3001 site will reduce environmental risks for over 55,000 people who utilize the Garber-Wellington Aquifer as a drinking water source.
- The remedy selected for the Soldier Creek operable unit includes monitoring and risk evaluations to ensure a risk to human health or the environment does not develop in the creek.
- The risk assessment and remedial action objectives for this Site was based on its continued controlled use by the military. With regard to re-use, “additional” risk assessments and remedial actions may need to be conducted to accommodate “other” non-military controlled future uses.